AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (currently amended): A communications method for use in an orthogonal frequency division multiplexed system, the method comprising:

modulating, using phase modulation, first control information on a first component of a single tone to generate a first single tone control signal, said first single tone control signal including the first component and a second component, said first and second components having a phase difference of 90 degrees, said second component communicating information which is separate from said first control information or being null; and

transmitting said first single tone control signal using said single tone during a single orthogonal frequency division multiplexed symbol transmission time period.

Claim 2 (original): The method of claim 1, wherein said first control information is transmission power control information corresponding to a first wireless terminal.

Claim 3 (original): The method of claim 1, wherein said first control information is transmission frequency control information corresponding to a first wireless terminal.

Claim 4 (original): The method of claim 1, wherein said first control information is transmission timing control information corresponding to a first wireless terminal.

Claim 5 (currently amended): The method of claim 2, wherein said first single tone control signal indicates one of an increase and a decrease, said step of modulating

including setting the phase of the first single tone control signal to a first value if said first single tone control signal indicates an increase and to a second value if said first single tone control signal indicates a decrease, said second value having a 180 degree difference from the first value ~~includes an In-phase component and a Quadrature component, said first control information being modulated on a first single one of said In-phase and Quadrature components~~.

Claim 6 (currently amended): The method of ~~claim 5,~~ claim 1, wherein said first component is an In-phase component and said second component is a Quadrature component, said first control information being modulated on a first single one of said In-phase and Quadrature components, the method further ~~comprising~~ comprising:

modulating second control information corresponding to a second wireless terminal on said single tone, said second control information being said separate information, said second control information being modulated on the ~~a~~ second single one of said In-phase and Quadrature components, said second single one of said In-phase and Quadrature components being different from said first single one of said In-phase and Quadrature components.

Claim 7 (currently amended): The method of claim 5, further comprising operating said first wireless terminal to receive said first single tone control signal and adjusting a transmission power level as a function of the first control information modulated on said first single tone control signal.

Claim 8 (currently amended): The method of ~~claim 5~~ claim 6, wherein the second single one of said In-phase and

Quadrature phase components is transmitted with no more than 10% of the power that is used to transmit said first single one of said In-phase and Quadrature components.

Claim 9 (currently amended): The method of ~~claim 8~~ claim 1, wherein the power transmitted on the second signal one of said In-phase and Quadrature components is zero.

Claim 10 (currently amended): The method of ~~claim 5,~~ claim 6, wherein said step of modulating second control information ~~step~~ includes performing an amplitude modulation operation to modulate said second ~~first~~ control information on said ~~first~~ second single one of said In-phase and Quadrature components, said modulation for said second single one of said In-phase and Quadrature components including assigning, as a function of said first control information, a single value from a set of at least 3 possible values.

Claim 11 (original): The method of claim 10, wherein at least one of the 3 possible values is zero indicating no change in transmission power is to be made by said first wireless terminal.

Claim 12 (original): The method of claim 10, wherein said set of possible values includes a predetermined interval of possible values.

Claim 13 (currently amended): The method of claim 1, ~~claim 11,~~ further comprising:

modulating control information on a single tone indicating no change during a second period of time which is different from a first period of time corresponding to said first control information, said modulating generating

a second single tone control signal, said second single tone control signal having an amplitude of zero; and

transmitting said second ~~first~~ single tone control signal during a single orthogonal frequency division multiplexed symbol transmission time period

~~wherein said control information is a single value which can be any one of at least three values, one of said at least 3 values being zero indicating no change in transmission power is to be made by said first wireless terminal, said step of modulating control information including mapping said single value to one of at least three signal amplitude levels, a zero control value being mapped to a zero amplitude value of the amplitude modulated signal~~.

Claim 14 (currently amended): The method of ~~claim 5,~~ claim 6, wherein ~~said~~ modulating said second control information includes performing amplitude modulation.

Claim 15 (currently amended): The method of claim 14, further comprising:

multiplying the amplitude modulated one of the In-phase and Quadrature components by a first scaling factor, said first scaling factor being a function of downlink quality report information ~~so far~~ received from the wireless terminal to which the modulated one of the In-phase and Quadrature components corresponds.

Claim 16 (currently amended): ~~The method of claim 15, further comprising:~~ A communications method for use in an orthogonal frequency division multiplexed system, the method comprising:

modulating first control information on a single tone to generate a first control signal; and

transmitting said first control signal using said single tone during a single orthogonal frequency division multiplexed symbol transmission time period;

wherein said first control information is transmission power control information corresponding to a first wireless terminal;

wherein said first control signal includes an In-phase component and a Quadrature component, said first control information being modulated on a first single one of said In-phase and Quadrature components;

wherein said modulating includes performing amplitude modulation, the method further comprising:

multiplying the amplitude modulated one of the In-phase and Quadrature components by a first scaling factor, said first scaling factor being a function of downlink quality report information so far received from the wireless terminal to which the modulated one of the In-phase and Quadrature components corresponds; and

increasing said first scaling factor in response to receiving downlink quality information indicative of a decrease in downlink channel quality and decreasing said first scaling factor in response to receiving downlink quality information indicative of a increase in downlink channel quality.

Claim 17 (currently amended): The method of ~~claim 14~~ claim 16, further comprising:

operating the wireless terminal to receive the scaled amplitude modulated signal; and

operating the wireless terminal to multiply the received signal by a second scaling factor that is a function of the downlink quality information previously sent by said wireless terminal.

Claim 18 (currently amended): The method of claim 17, ~~increasing~~ decreasing the second scaling factor in response to an increase in downlink channel quality and ~~decreasing~~ increasing the second scaling factor in response to ~~an~~ a decrease in downlink channel quality

Claim 19 (original): The method of claim 2, further comprising:

periodically transmitting a first set of said modulated power control signals corresponding to a first wireless terminal, at least some of said first set of modulated power control signals being modulated on different tones during different orthogonal frequency division multiplexed symbol transmission time periods.

Claim 20 (original): The method of claim 19, wherein the tones used to modulate said first set of modulated power control signals is determined by a first predetermined hopping sequence.

Claim 21 (original): The method of claim 20, wherein the first predetermined hopping sequence corresponds to a terminal identifier associated with the first wireless terminal.

Claim 22 (currently amended): ~~The method of claim 20,~~ A communications method for use in an orthogonal frequency division multiplexed system, the method comprising:

modulating first control information on a single tone to generate a first control signal;

transmitting said first control signal using said single tone during a single orthogonal frequency division multiplexed symbol transmission time period;

wherein said first control information is transmission power control information corresponding to a first wireless terminal,

the method further comprising:

periodically transmitting a first set of said modulated power control signals corresponding to a first wireless terminal, at least some of said first set of modulated power control signals being modulated on different tones during different orthogonal frequency division multiplexed symbol transmission time periods;

wherein the tones used to modulate said first set of modulated power control signals is determined by a first predetermined hopping sequence; and

wherein said first wireless terminal uses a second predetermined hopping sequence to select tones for data communication purposes, the periodicity of the second predetermined hopping sequence being shorter than the periodicity of the first predetermined hopping sequence.

Claim 23 (original): The method of claim 22, wherein the periodicity of the second predetermined hopping sequence is at most half of the periodicity of the first predetermined hopping sequence.

Claim 24 (currently amended): The method of ~~claim 8~~ claim 1,

wherein the first component is a Quadrature signal component and the second component is an In-phase signal component;

wherein one of the In-phase and Quadrature signal components are not used, the method further comprising:

operating the wireless terminal to ignore the received power control information when the unused one of the In-

phase and Quadrature components includes power above a preselected threshold.

Claim 25 (currently amended): The method of ~~claim 5~~ claim 6, further comprising:

transmitting a plurality of power control signals to said first wireless terminal over a period of time; and

transmitting a periodic device identifier signal on the second single one of the In-phase and Quadrature signal components of at least 50% less frequently than the power control signals transmitted to said first wireless terminal.

Claim 26 (currently amended): ~~The method of claim 25,~~ A communications method for use in an orthogonal frequency division multiplexed system, the method comprising:

modulating first control information on a single tone to generate a first control signal; and

transmitting said first control signal using said single tone during a single orthogonal frequency division multiplexed symbol transmission time period;

wherein said first control information is transmission power control information corresponding to a first wireless terminal;

wherein said first control signal includes an In-phase component and a Quadrature component, said first control information being modulated on a first single one of said In-phase and Quadrature components, the method further comprising:

transmitting a plurality of power control signals to said first wireless terminal over a period of time; and

transmitting a periodic device identifier signal on the second single one of the In-phase and Quadrature signal components of at least 50% less frequently than the power

control signals transmitted to said first wireless terminal; and

wherein said single orthogonal frequency division multiplexed symbol transmission time period during which said periodic device identifier is transmitted is a function of a wireless device identifier unique to said first wireless terminal.

Claim 27 (original): The method of claim 26, wherein the value of the periodic device identifier at any given time is a function of a wireless device identifier unique to said first wireless terminal.

Claim 28 (currently amended): The method of ~~claim 5~~ claim 6,

wherein one of the possible modulated signal values corresponds to a control command indicating no change in power; and

wherein transmitting said first control information includes transmitting said ~~signal~~ single tone with zero power when said first control information indicates no change in power.

Claim 29 (currently amended): The method of ~~claim 5~~ claim 1, wherein said ~~power~~ single tone control signal is transmitted in a first sector corresponding to a base station, the method comprising:

operating the base station to control a second sector adjacent to said first base station to leave the tone used by said first ~~power~~ single tone control signal unused in said second sector when said first single tone control signal is transmitted.

Claim 30 (currently amended): A communications apparatus for use in an orthogonal frequency division multiplexed communications system including a wireless terminal, the communications apparatus comprising:

a modulator for modulating, using phase modulation, first control information on a first component of a single tone to generate a first single tone control signal, said first single tone control signal including the first component and a second component, said first and second components having a phase difference of 90 degrees, said second component communicating information which is separate from said first control information or being null; and

a transmitter coupled to said modulator for transmitting said first single tone control signal using said single tone during a single orthogonal frequency division multiplexed symbol transmission time period.

Claim 31 (original): The communications apparatus of claim 30, wherein said first control information is one of transmission power control information, transmission frequency control information, and transmission timing control information corresponding to said wireless terminal.

Claim 32 (original): The communications apparatus of claim 31,

wherein said first single tone control signal includes an In-phase component and a Quadrature component; and

wherein said modulator is an amplitude modulator for amplitude modulating first control information on a first single one of said In-phase and Quadrature components.

Claim 33 (original): The communications apparatus of claim 32, wherein said modulator further modulates second control information corresponding to a second wireless terminal on said single tone, on a second single one of said In-phase and Quadrature components, said second single one of said In-phase and Quadrature components being different from said first single one of said In-phase and Quadrature components.

Claim 34 (original): The communications apparatus of claim 32, wherein the power transmitted on the second single one of said In-phase and Quadrature components is zero.

Claim 35 (original): The communications apparatus of claim 32, wherein said modulator includes

means for mapping said first control information to a single value from a set of at least 3 possible values which may be amplitude modulated on said first one of said In-phase and Quadrature phase signal components; and

wherein at least one of the 3 possible values is zero indicating no change in transmission power is to be made by said wireless terminal.

Claim 36 (original): The communications apparatus of claim 32, further comprising:

a scaling device for multiplying the amplitude modulated one of the In-phase and Quadrature components by a first scaling factor, said first scaling factor being a function of downlink quality report information so far received from the wireless terminal to which the modulated one of the In-phase and Quadrature components corresponds.

Claim 37 (currently amended): ~~The communications apparatus of claim 36, further comprising:~~ A communications apparatus

for use in an orthogonal frequency division multiplexed communications system including a wireless terminal, the communications apparatus comprising:

a modulator for modulating first control information on a single tone to generate a first control signal; and

a transmitter coupled to said modulator for transmitting said first control signal using said single tone during a single orthogonal frequency division multiplexed symbol transmission time period;

wherein said first control information is one of transmission power control information, transmission frequency control information, and transmission timing control information corresponding to said wireless terminal;

wherein said first control signal includes an In-phase component and a Quadrature component;

wherein said modulator is an amplitude modulator for amplitude modulating first control information on a first single one of said In-phase and Quadrature components, the apparatus further comprising:

a scaling device for multiplying the amplitude modulated one of the In-phase and Quadrature components by a first scaling factor, said first scaling factor being a function of downlink quality report information so far received from the wireless terminal to which the modulated one of the In-phase and Quadrature components corresponds;

means for increasing said first scaling factor in response to receiving downlink quality information indicative of a decrease in downlink channel quality and decreasing said first scaling factor in response to receiving downlink quality information indicative of a increase in downlink channel quality.

Claim 38 (original): The communications apparatus of claim 32, further comprising:

means for allocating tones used to transmit power control signals according to a first predetermined frequency hopping pattern said tones assigned according to the first frequency hopping pattern including a first set of modulated power control signals, at least some of said first set of modulated power control signals being modulated on different tones during different orthogonal frequency division multiplexed symbol transmission time periods.

Claim 39 (original): The communications apparatus of claim 38, wherein the first predetermined hopping sequence corresponds to a terminal identifier associated with the wireless terminal.

Claim 40 (currently amended): ~~The communications apparatus of claim 38,~~ A communications apparatus for use in an orthogonal frequency division multiplexed communications system including a wireless terminal, the apparatus comprising:

a modulator for modulating first control information on a single tone to generate a first control signal; and

a transmitter coupled to said modulator for transmitting said first control signal using said single tone during a single orthogonal frequency division multiplexed symbol transmission time period;

wherein said first control information is one of transmission power control information, transmission frequency control information, and transmission timing control information corresponding to said wireless terminal;

a tone allocation module for allocating tones used to transmit power control signals according to a first predetermined frequency hopping pattern said tones assigned according to the first frequency hopping pattern including a first set of modulated power control signals, at least some of said first set of modulated power control signals being modulated on different tones during different orthogonal frequency division multiplexed symbol transmission time periods;

wherein said first control signal includes an In-phase component and a Quadrature component;

wherein said modulator is an amplitude modulator for amplitude modulating first control information on a first single one of said In-phase and Quadrature components; and

wherein tones are allocated for transmitting data to said wireless terminal according to a second predetermined hopping sequence, the periodicity of the second predetermined hopping sequence being shorter than the periodicity of the first predetermined hopping sequence.

Claim 41 (original): The communications apparatus of claim 32, wherein said transmitter transmits a plurality of power control signals to said first wireless terminal over a period of time; and

includes means for transmitting a periodic device identifier signal on the second single one of the In-phase and Quadrature signal components on less than 50% of the power control signals transmitted to said wireless terminal.

Claim 42 (currently amended): ~~The communications apparatus of claim 11,~~ A communications apparatus for use in an orthogonal frequency division multiplexed communications

system including a wireless terminal, the apparatus comprising:

a modulator for modulating first control information on a single tone to generate a first control signal; and

a transmitter coupled to said modulator for transmitting said first control signal using said single tone during a single orthogonal frequency division multiplexed symbol transmission time period;

wherein said first control information is one of transmission power control information, transmission frequency control information, and transmission timing control information corresponding to said wireless terminal;

wherein said first control signal includes an In-phase component and a Quadrature component;

wherein said modulator is an amplitude modulator for amplitude modulating first control information on a first single one of said In-phase and Quadrature components;

wherein said transmitter transmits a plurality of power control signals to said first wireless terminal over a period of time; and includes means for transmitting a periodic device identifier signal on the second single one of the In-phase and Quadrature signal components on less than 50% of the power control signals transmitted to said wireless terminal; and

wherein said single orthogonal frequency division multiplexed symbol transmission time period during which said periodic device identifier is transmitted is a function of a wireless device identifier unique to said wireless terminal.

Claim 43 (currently amended): ~~The communications apparatus of claim 41,~~ A communications apparatus for use in an orthogonal frequency division multiplexed communications

system including a wireless terminal, the apparatus comprising:

a modulator for modulating first control information on a single tone to generate a first control signal; and

a transmitter coupled to said modulator for transmitting said first control signal using said single tone during a single orthogonal frequency division multiplexed symbol transmission time period;

wherein said first control information is one of transmission power control information, transmission frequency control information, and transmission timing control information corresponding to said wireless terminal;

wherein said first control signal includes an In-phase component and a Quadrature component;

wherein said modulator is an amplitude modulator for amplitude modulating first control information on a first single one of said In-phase and Quadrature components;

wherein said transmitter transmits a plurality of power control signals to said first wireless terminal over a period of time; and includes means for transmitting a periodic device identifier signal on the second single one of the In-phase and Quadrature signal components on less than 50% of the power control signals transmitted to said wireless terminal; and

wherein the value of the periodic device identifier at any given time is a function of a wireless device identifier unique to said first wireless terminal.

Claim 44 (original): The communications apparatus of claim 32,

wherein one of the possible modulated signal values corresponds to a control command indicating no change in power; and

wherein transmitting said first control information includes transmitting said signal tone with zero power when said first control information indicates no change in power.

Claim 45 (currently amended): The communications apparatus of claim 32, wherein said apparatus is a sectorized base station and wherein said transmitter is a transmitter in a sector of the sectorized base station, said apparatus including:

a control module for controlling a second sector adjacent to said first base station to leave the tone used by said first power control signal unused in said second sector when said first single tone control signal is transmitted.

Claim 46 (currently amended): A method of operating a wireless terminal in an orthogonal frequency division multiplexed communications system, the method comprising:

periodically receiving control signals corresponding to said wireless terminal, each control signal having control information of a first type, corresponding to one of ~~at least~~ three different values, first and third ones of said three different values being communicated using phase, a second one of said three different values being communicated as a null value ~~, amplitude modulated on a first single one of an In phase component and a Quadrature phase component of a single tone during a single orthogonal frequency division multiplexed symbol transmission time period~~; and

determining ~~from the magnitude of said first single one of said In phase and Quadrature phase signal components of each received control signal an amount of~~ an adjustment to be made based on whether a received control signal

communicates a first, second or third value, said adjustment corresponding to the control information type.

Claim 47 (original): The method of claim 46, wherein said first type of information is one of power control information, timing control information and frequency control information.

Claim 48 (currently amended): The method of claim 46, wherein said first type of control information is power control information, the method further comprising:

operating the wireless terminal to perform a transmission power adjustment operation in response to the determined adjustment ~~magnitude of at least one of said first single one of said In phase and Quadrature phase signal components~~.

Claim 49 (currently amended): The method of claim 47, wherein a ~~determined~~ magnitude of approximately zero of a received control signal ~~for said first single one of said In phase and Quadrature phase signal components~~ indicates no transmission power adjustment is to be made.

Claim 50 (currently amended): ~~The method of claim 47, further comprising:~~ A method of operating a wireless terminal in an orthogonal frequency division multiplexed communications system, the method comprising:

periodically receiving control signals corresponding to said wireless terminal, each control signal having control information of a first type, corresponding to one of at least three different values, said control signal being received on a first single one of an In-phase component and a Quadrature phase component of a single tone

during a single orthogonal frequency division multiplexed symbol transmission time period;

determining from said first single one of said In-phase and Quadrature phase signal components of each received control signal an adjustment to be made, said adjustment corresponding to the control information type;

checking a signal transmitted on ~~the~~ a second single one of the In-phase and Quadrature phase components to determine if said single orthogonal frequency division multiplexed symbol transmission time period during which said signal is transmitted and the value of said signal are a function of a wireless device identifier unique to said wireless terminal; and

wherein said first type of information is one of power control information, timing control information and frequency control information.

Claim 51 (original): The method of claim 50, further comprising:

disregarding the received power control information when said checking indicates said signal on the second one of the In-phase and Quadrature components is not for said wireless terminal.

Claim 52 (currently amended): The method of claim 47, wherein each received control signal includes an In-phase component and a Quadrature phase component, the method further comprising:

ignoring a received control signal when the power of the second one of the In-phase and Quadrature phase components of said received control signal is above a preselected threshold.

Claim 53 (original): The method of claim 52, wherein said threshold is a power level threshold corresponding to a preselected level of signal noise.

Claim 54 (currently amended): A wireless terminal for use in an orthogonal frequency division multiplexed communications system, the ~~method~~ wireless terminal comprising:

~~a receiver~~ means for receiving control signals corresponding to said wireless terminal, each control signal having control information of a first type, corresponding to one of at least three different values, first and third ones of said three different values being communicated using phase, a second one of said three different values being communicated as a null value ~~amplitude modulated on a first single one of an In phase component and a Quadrature phase component of a single tone during a single orthogonal frequency division multiplexed symbol transmission time period~~; and

means for determining from the ~~magnitude of said first single one of said In phase and Quadrature phase signal components of each received control signal an amount of~~ communicated value an adjustment to be made, said adjustment corresponding to the control information type.

Claim 55 (original): The wireless terminal of claim 54, wherein said first type of information is one of power control information, timing control information and frequency control information.

Claim 56 (currently amended): The wireless terminal of claim 55, wherein said first type of control information is timing control information, the wireless terminal comprising:

means for performing a transmission power adjustment operation in response to receiving one of the first and third ones of said three different values ~~the determined magnitude of at least one of said first single one of said In phase and Quadrature phase signal components~~.

Claim 57 (currently amended): The wireless terminal of claim 56, wherein a received null value ~~determined magnitude of approximately zero for said first single one of said In phase and Quadrature phase signal components~~ indicates no transmission power adjustment is to be made.

Claim 58 (currently amended): ~~The wireless terminal of claim 55, further comprising:~~ A wireless terminal for use in an orthogonal frequency division multiplexed communications system, the wireless terminal comprising:

means for receiving control signals corresponding to said wireless terminal, each control signal having control information of a first type, corresponding to one of at least three different values, amplitude modulated on a first single one of an In-phase component and a Quadrature phase component of a single tone during a single orthogonal frequency division multiplexed symbol transmission time period; and

means for determining from the magnitude of said first single one of said In-phase and Quadrature phase signal components of each received control signal an amount of an adjustment to be made, said adjustment corresponding to the control information type;

means for checking a signal transmitted on ~~the~~ a second single one of the In-phase and Quadrature phase components to determine if said single orthogonal frequency division multiplexed symbol transmission time period during which said signal is transmitted and the value of said

signal are a function of a wireless device identifier unique to said wireless terminal; and

wherein said first type of information is one of power control information, timing control information and frequency control information.

Claim 59 (original): The wireless terminal 58, further comprising:

disregarding the received power control information when said checking indicates said signal on the second one of the In-phase and Quadrature components is not for said wireless terminal.

Claim 60 (currently amended): The wireless terminal of claim 55, wherein one of the control ~~signal~~ signals is a power control signal and wherein the control information of the power control signal is communicated using a single one of an In-phase signal component and a Quadrature phase signal component of the power control signal, said wireless terminal further comprising:

means for disregarding a received power control signal when the power of the second one of the In-phase and Quadrature phase components of said signal is above a preselected threshold.

Claim 61 (new): A device for use in an orthogonal frequency division multiplexed system, said device including a processor configured to control said device to implement a method, the method comprising:

modulating, using phase modulation, first control information on a first component of a single tone to generate a first single tone control signal, said first single tone control signal including the first component and a second component, said first and second components

having a phase difference of 90 degrees, said second component communicating information which is separate from said first control information or being null; and

transmitting said first single tone control signal using said single tone during a single orthogonal frequency division multiplexed symbol transmission time period.

Claim 62 (new): The device of claim 61, wherein said first control information is transmission power control information corresponding to a first wireless terminal.

Claim 63 (new): The device of claim 61, wherein said first control information is transmission frequency control information corresponding to a first wireless terminal.

Claim 64 (new): A computer readable medium embodying machine executable instructions for controlling a device for use in an orthogonal frequency division multiplexed system, to implement a method, the method comprising:

modulating, using phase modulation, first control information on a first component of a single tone to generate a first single tone control signal, said first single tone control signal including the first component and a second component, said first and second components having a phase difference of 90 degrees, said second component communicating information which is separate from said first control information or being null; and

transmitting said first single tone control signal using said single tone during a single orthogonal frequency division multiplexed symbol transmission time period.

Claim 65 (new): The computer readable medium of claim 64, wherein said first control information is transmission

power control information corresponding to a first wireless terminal.

Claim 66 (new): The computer readable medium of claim 64, wherein said first control information is transmission frequency control information corresponding to a first wireless terminal.

Claim 67 (new): A communications apparatus for use in an orthogonal frequency division multiplexed communications system including a wireless terminal, the communications apparatus comprising:

means for modulating, using phase modulation, first control information on a first component of a single tone to generate a first single tone control signal, said first single tone control signal including the first component and a second component, said first and second components having a phase difference of 90 degrees, said second component communicating information which is separate from said first control information or being null; and

means for transmitting said first single tone control signal using said single tone during a single orthogonal frequency division multiplexed symbol transmission time period.

Claim 68 (new): The communications apparatus of claim 67, wherein said first control information is one of transmission power control information, transmission frequency control information, and transmission timing control information corresponding to said wireless terminal.

Claim 69 (new): The communications apparatus of claim 68, wherein said first single tone control signal indicates one

of an increase and a decrease, said step of modulating including setting the phase of the first single tone control signal to a first value if said first single tone control signal indicates an increase and to a second value if said first single tone control signal indicates a decrease, said second value having a 180 degree difference from the first value.

Claim 70 (new): A wireless terminal for use in an orthogonal frequency division multiplexed communications system, said wireless terminal including a processor configured to control said wireless terminal to implement a method, the method comprising:

periodically receiving control signals corresponding to said wireless terminal, each control signal having control information of a first type, corresponding to one of three different values, first and third ones of said three different values being communicated using phase, a second one of said three different values being communicated as a null value; and

determining an adjustment to be made based on whether a received control signal communicates a first, second or third value, said adjustment corresponding to the control information type.

Claim 71 (new): The wireless terminal of claim 70, wherein said first type of information is one of power control information, timing control information and frequency control information.

Claim 72 (new): The wireless terminal of claim 70, wherein said first type of control information is power control information, and wherein the method further comprises:

performing a transmission power adjustment operation in response to the determined adjustment.

Claim 73 (new): A computer readable medium embodying machine executable instructions for controlling a wireless terminal for use in an orthogonal frequency division multiplexed communications system, to implement a method, the method comprising:

periodically receiving control signals corresponding to said wireless terminal, each control signal having control information of a first type, corresponding to one of three different values, first and third ones of said three different values being communicated using phase, a second one of said three different values being communicated as a null value; and

determining an adjustment to be made based on whether a received control signal communicates a first, second or third value, said adjustment corresponding to the control information type.

Claim 74 (new): The computer readable medium of claim 73, wherein said first type of information is one of power control information, timing control information and frequency control information.

Claim 75 (new): The computer readable medium of claim 73, wherein said first type of control information is power control information, and wherein the method further comprises:

performing a transmission power adjustment operation in response to the determined adjustment.

Claim 76 (new): A wireless terminal for use in an orthogonal frequency division multiplexed communications system, the wireless terminal comprising:

a receiver for receiving control signals corresponding to said wireless terminal, each control signal having control information of a first type, corresponding to one of at least three different values, first and third ones of said three different values being communicated using phase, a second one of said three different values being communicated as a null value; and

a determination module for determining from the communicated value, an adjustment to be made, said adjustment corresponding to the control information type.

Claim 77 (new): The wireless terminal of claim 76, wherein said first type of information is one of power control information, timing control information and frequency control information.

Claim 78 (new): The wireless terminal of claim 77, wherein said first type of control information is timing control information, the wireless terminal further comprising:

a power adjustment module for performing a transmission power adjustment operation in response to receiving one of the first and third ones of said three different values.

Claim 79 (new): The method of claim 46, wherein the first and third ones of said three different values are communicated using first and third symbol values, said first and third symbol values differing in phase by 180 degrees, the second one of said three different values being communicated by a symbol value occurring on an axis

extending between said first and third values, each of said first, second, and third values being on said axis.